

## **ABSTRACT OF THE DISCLOSURE**

The present invention relates generally to a system of components, comprising an integrated architecture, which supports calibration  
5 of financial models, and the structuring, pricing, mark-to-market valuation, simulation, risk management, and reporting of a variety of credit instruments subject to both credit and market risk (e.g., interest rate, foreign exchange risk). Detailed instrument complexities may be accommodated, by modeling the underlying economic behavior driving the exercise of embedded options  
10 and other structural features of credit instruments by implementing detailed economic behavioral models. In one aspect of the present invention, the system comprises a database for storing credit instrument data, a first calibration engine for generating calibration parameters from the credit instrument data, a second pricing engine adapted to calculate the net present  
15 values and valuation metrics for the credit instruments by modeling the underlying economic behaviour driving the exercise of embedded options and other structural features of the credit instruments, a third engine for performing simulation-based computations, a fourth risk engine for computing risk and reward metrics, and a report generator for generating reports for use  
20 in managing risk.